



Maximizing Small Business Innovation by Eliminating Cost-Sharing Requirements

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Overview

The U.S. Department of Energy (DOE) is funding research to promote reliable, efficient, and economically-attractive sources of electric power. The goal is to ensure a reliable power infrastructure, reduce cost, and eliminate dependency on foreign energy sources. While the funding is available to all US businesses, many, if not most, small businesses are effectively excluded, due to cost sharing requirements. However, US law does permit the Secretary of Energy to waive cost-sharing requirements if he deems it “necessary and appropriate”¹. The Small Business Technology Council (SBTC) believes that eliminating cost-sharing requirements for small business is indeed “necessary and appropriate” to allow them to fully participate in energy research for the DOE. The SBTC therefore recommends that cost-sharing be eliminated for small businesses participating in DOE-funded R&D programs, including Phase III follow-on contracts.

Background

It is widely accepted that small businesses are the primary sources of innovation and job creation in this country. More scientists and engineers are employed by small businesses than the nation’s universities and Fortune 500 companies combined. The productivity of small businesses is demonstrated by the Small Business Innovation Research (SBIR) program, where approximately 7,000 companies competed for awards in 2008 from the Department of Defense (DoD), Health and Human Services (NIH), DOE, and other government agencies. DOE alone received 1,494 Phase I and 279 Phase II applications.

Unlike other agencies, DOE requires a 20-50% cost share for non-SBIR research and development (excluding the Office of Science). This cost share applies to research (other than basic or fundamental), development, demonstration, or commercial application programs. While this cost share is a legal requirement, there is a provision in the law that allows the Secretary of Energy to eliminate this requirement for a specific activity or program, at his discretion.

It is generally assumed that “basic or fundamental research” is performed at universities and not in industry, despite historical evidence to the contrary. Small businesses have made significant contributions to the nation’s knowledge base in energy and environmental sciences, often working closely with DOE laboratories, including Sandia National Laboratory and the National Energy Technology Laboratory.

¹ 42 USC §16352 (b)(3) & (c)(2) "Reduction of non-Federal Share"



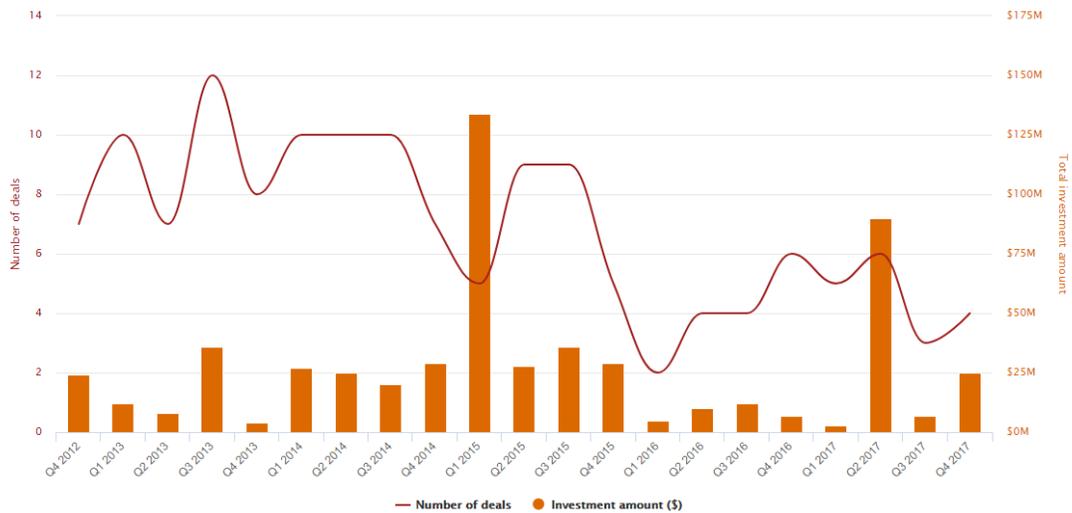
Current situation

The 20% cost sharing requirement for DOE Broad Area Announcements and 50% requirement for ARPA-E funding opportunities preferentially burdens small businesses when compared with universities and large corporations. Consequently, these programs exclude most scientists and engineers employed in small businesses, which constitute the majority of the nation’s innovative and creative talent. In contrast, the highly successful Defense Advanced Research Projects Agency (DARPA) requires no cost-sharing for its programs.

Proponents of cost-sharing argue that for-profit companies will commercially benefit from federally-funded technology and should be willing to invest their own capital and resources. For small businesses, technology commercialization is a serious and risky activity. While large corporations can leverage resources over a broad product range, small businesses don’t have access to similar resources. Small businesses must evaluate the risks associated with the development and consider the reality that even a successful product can take years to commercialize. The commercial market for energy-related products and services is both qualitatively and quantitatively different from the defense sector, requiring many years, if not decades, for market acceptance, regulatory approval and real-world scale. This prevents small businesses from engaging in moderate to high risk research that drives the greatest innovations.

2012-2017 Seed and Early Stage VC Deals, Energy & Utilities Sector²

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The above chart shows that private funding for energy sector R&D is practically non-existent, with only a total of 18 seed and early-stage deals made in 2017. Small businesses simply can not depend on private financing to help with cost-sharing, and therefore are forced to pay out of pocket. Small firms simply do not have the resources to do this.

² PWC MoneyTree: <https://www.pwc.com/us/en/industries/technology/moneytree/explorer.html>



Recommendation

The SBTC recommends that the DOE fully engage the nation's small business scientists and engineers in energy-related research and development by removing the barrier imposed by cost-sharing. The Secretary of Energy has the statutory authority to eliminate cost sharing requirements for small businesses, and we encourage him to do so, which will benefit not only DOE R&D programs, but the US economy as a whole.

The Department of Energy should eliminate all cost-sharing requirements for research and development performed by SBIR-eligible companies.